MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 3, 2022/2023

BAC2624 – MANAGEMENT ACCOUNTING 2

(All Sections / Groups)

2 October 2023
9.00 am. – 12.00 pm.
(3 Hours)

INSTRUCTIONS TO STUDENT:

1. This Question paper consists of **7** pages (excluding cover page) with **4 Questions** only.
2. Answer **ALL** Questions. The distribution of the marks for each question is given.
3. Please write all your answers in the Answer Booklet provided.

QUESTION 1

PART A

Super Sport produces athletic shoes and clothing for both amateur and professional athletes. Two product lines (clothing and shoes) are produced in separate manufacturing facilities; however, both manufacturing facilities utilise the same information technology and human resources support services. Following are the total costs for each manufacturing facility and for each support department.

	Variable Costs (RM)	Fixed Costs (RM)	Total Costs by Department (RM)
Information technology (IT)	600	2,000	2,600
Human resources (HR)	400	1,000	1,400
Clothing	2,500	8,000	10,500
Shoes	3,000	4,500	7,500
Total costs	6,500	15,500	22,000

The total costs of the support departments (IT and HR) are allocated to the production departments (clothing and shoes) using a single rate based on the following:

- Information technology: Number of IT labour-hours worked by department
  Human resources: Number of employees supported by department

Data on the bases, by department, are given as follows:

Department	IT hours used	Number of employees
Clothing	5,040	220
Shoes	3,960	88
Information technology	-	92
Human resources	3,000	-

Required:

Compute the total costs of the production departments (clothing and shoes) after the support department costs of information technology and human resources have been allocated using (i) the direct method, and (ii) the reciprocal method.

(9 marks)

PART B

Ceria Enterprise purchases old tyres for the purpose of recycling them into rubber floor mats and car mats. The company washes, shreds, and forms sheets from recycled tyres. From these sheets, the floor and car mats are cut. After cutting the mats, a small quantity of rubber shred remains. Rubber shreds can be sold for use as path and playground surfacing. The company can produce 25 floor mats, 75 car mats, and 40 gm of rubber shreds from 100 old tyres.

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In the month of May, Ceria Enterprise, which had no beginning inventory, processed 125,000 tyres and had joint production costs of RM600,000.

Ceria Enterprise sold 25,000 floor mats, 85,000 car mats, and 43,000 gm of rubber shreds. The company sells each floor mat for RM12 and each car mat for RM6. The company treats the rubber shreds as a by-product that can be sold for RM0.70 per gm.

Required:

Assume that Ceria Enterprise allocates the joint costs to floor mats and car mats using the sales value at split-off method and accounts for the by-product using the production method. Compute (i) the joint cost for floor mat and car mat, (ii) the ending inventory cost for each product and (iii) gross margin for Ceria Enterprise.

(16 marks)
[TOTAL: 25 MARKS]

QUESTION 2

PART A

GoodConcept Corporation is in the process of setting a selling price for a new product it has just designed. The following data relate to this product for a budgeted volume of 60,000 units.

	Per Unit (RM)	Total (RM)
Direct materials	30	
Direct labour	40	
Variable manufacturing overhead	10	
Fixed manufacturing overhead		1,800,000
Variable selling and administrative expenses	6	
Fixed selling and administrative expenses		1,440,000

GoodConcept uses cost-plus pricing to set its target selling price. The markup on total unit cost is 30%.

Required:
Compute each of the following for the new product:

i. Total variable cost per unit, total fixed cost per unit, and total cost per unit.

(5 marks)

ii. Desired ROI per unit.

(1 mark)

iii. Target selling price.

(2 marks)

iv. In what situation does a company place the greatest focus on its target cost? How is the target cost determined?

(2 marks)

Continued...

PART B

HappyMoment Company manufactures a single product. All material is added at the beginning of the process. Conversion costs are added evenly during the process. Spoiled units are detected upon inspection at the end of the process and are disposed of at zero net disposal value. HappyMoment Company uses the First-In, First-Out method of process costing. Summary data for May as follows:

COSTS:	Material (RM)	Conversion (RM)
Beginning inventory	30,000	3,600
Current period	885,120	335,088

UNITS:	
Beginning inventory (30% complete-conversion)	6,000 units
Started	180,000 units
Completed	152,000 units
Ending inventory (70% complete-conversion)	20,000 units
Normal spoilage	4,800 units

Required:
Prepare a production cost report for the month of May.

(15 marks)
[TOTAL: 25 MARKS]

QUESTION 3

PART A

Tioman Indah applies overhead based on direct labour hours and has the following available for the current month:

Standard:	
Direct labor hours (DLH) per unit	6
Variable overhead per DLH	RM0.80
Fixed overhead per DLH (based on 11,900 DLHs)	RM2.10

Actual:	
Units produced	2,000
Direct labour hours	11,900
Variable overhead	RM9,900
Fixed overhead	RM25,500

Required:

Compute (i) variable overhead spending variance, (ii) variable overhead efficiency variance, (iii) fixed overhead spending variance and (iv) fixed overhead volume variance.

(8 marks)
Continued...

PART B

Brooks Clinic is considering investing in new heart-monitoring equipment. It has two options. Option A would have an initial lower cost but would require a significant expenditure for rebuilding after 4 years. Option B would require no rebuilding expenditure, but its maintenance costs would be higher. Since the Option B machine is of initial higher quality, it is expected to have a salvage value at the end of its useful life. The following estimates were made of the cash flows. The company's cost of capital is 8%.

	Option A	Option B
Initial cost	RM160,000	RM227,000
Annual cash inflows	RM71,000	RM80,000
Annual cash outflows	RM30,000	RM31,000
Cost to rebuild (end of year 4)	RM50,000	RM0
Salvage value	RM0	RM8,000
Estimated useful life	7 years	7 years

Required:

Compute the (i) net present value and (ii) internal rate of return for each option. Which option should be accepted?

(17 marks)
[TOTAL: 25 MARKS]

QUESTION 4

PART A

TimeKeeper (TK) Sdn. Bhd. operates a retail store featuring wristwatches. It maintains an EOQ decision model to make inventory decisions. Currently, it is considering inventory decisions for its TagMe wristwatches product line, which is a very popular product line. Data for 2022 are as follows:

Expected annual demand for TagMe watches	7,000
Ordering cost per purchase order	RM300
Carrying cost per year	RM14 per wristwatch

Each watch costs TK RM75, and sells for RM200. The RM14 carrying cost per wristwatch per year consists of the required return on investment of RM9.00 (12% × RM75 purchase price) plus RM5.00 in relevant insurance, handling, and storage costs. The purchasing lead time is 10 days. TK is open 365 days a year.

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Required:

i. Compute the EOQ for the TagMe product line.

(3 marks)

ii. Compute the number of orders that will be placed each year.

(2 marks)

iii. Compute the reorder point.

(2 marks)

MakeWatch (MW) manufactures the TagMe wristwatches that TK sells to its customers. MW has recently installed computer software that enables its customers to conduct "one-stop" purchasing using state-of-the-art Web site technology. TK's ordering cost per purchase order will be RM50 using this new technology.

Required:

iv. Calculate the EOQ for the TagMe wristwatches using the revised ordering cost of RM50 per purchase order. Assume all other data remain the same. Interpret the result.

(4 marks)

v. Show FIVE (5) assumptions that are made when using the simplest version of the economic-order quantity (EOQ) decision model.

(5 marks)

PART B

Good IT Bhd. assembles handheld computers that have scaled-down capabilities of laptop computers. Each handheld computer takes 6 hours to assemble. Good IT uses a JIT production system and a backflush costing system with three trigger points:

- Purchase of direct materials and incurring of conversion costs
- Completion of good finished units of product
- Sale of finished goods

There are no beginning inventories of materials or finished goods and no beginning or ending work-in-process inventories. The following data are for August 2022:

Direct materials purchased	RM2,958,000
Direct materials used	RM2,937,600
Conversion costs incurred	RM777,600
Conversion costs allocated	RM806,400

Good IT records direct materials purchased and conversion costs incurred at actual costs. It has no direct material variances. When finished goods are sold, the backflush costing system "pulls through" standard direct material cost (RM102 per unit) and standard conversion cost (RM28 per unit). Good IT produced 28,800 finished units in August 2022 and sold 28,400 units. The actual direct material cost per unit in August 2022 was RM102, and the actual conversion cost per unit was RM27.

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Required:

Prepare summary journal entries for August 2022 (without disposing of under- or overallocated conversion costs).

(9 marks)

[TOTAL: 25 MARKS]

APPENDIX

TABLE 3 Present Value of 1

(n) Periods	4%	5%	6%	7%	8%	9%	10%	11%	12%	15%
1	.96154	.95238	.94340	.93458	.92593	.91743	.90909	.90090	.89286	.86957
2	.92456	.90703	.89000	.87344	.85734	.84168	.82645	.81162	.79719	.75614
3	.88900	.86384	.83962	.81630	.79383	.77218	.75132	.73119	.71178	.65752
4	.85480	.82270	.79209	.76290	.73503	.70843	.68301	.65873	.63552	.57175
5	.82193	.78353	.74726	.71299	.68058	.64993	.62092	.59345	.56743	.49718
6	.79031	.74622	.70496	.66634	.63017	.59627	.56447	.53464	.50663	.43233
7	.75992	.71068	.66506	.62275	.58349	.54703	.51316	.48166	.45235	.37594
8	.73069	.67684	.62741	.58201	.54027	.50187	.46651	.43393	.40388	.32690
9	.70259	.64461	.59190	.54393	.50025	.46043	.42410	.39092	.36061	.28426
10	.67556	.61391	.55839	.50835	.46319	.42241	.38554	.35218	.32197	.24719
11	.64958	.58468	.52679	.47509	.42888	.38753	.35049	.31728	.28748	.21494
12	.62460	.55684	.49697	.44401	.39711	.35554	.31863	.28584	.25668	.18691
13	.60057	.53032	.46884	.41496	.36770	.32618	.28966	.25751	.22917	.16253
14	.57748	.50507	.44230	.38782	.34046	.29925	.26333	.23199	.20462	.14133
15	.55526	.48102	.41727	.36245	.31524	.27454	.23939	.20900	.18270	.12289
16	.53391	.45811	.39365	.33873	.29189	.25187	.21763	.18829	.16312	.10687
17	.51337	.43630	.37136	.31657	.27027	.23107	.19785	.16963	.14564	.09293
18	.49363	.41552	.35034	.29586	.25025	.21199	.17986	.15282	.13004	.08081
19	.47464	.39573	.33051	.27615	.23171	.19449	.16351	.13768	.11611	.07027
20	.45639	.37689	.31180	.25842	.21455	.17843	.14864	.12403	.10367	.06110

TABLE 4 Present Value of an Annuity of 1

(n) Payments	4%	5%	6%	7%	8%	9%	10%	11%	12%	15%
1	.96154	.95238	.94340	.93458	.92593	.91743	.90909	.90090	.89286	.86957
2	1.88609	1.85941	1.83339	1.80802	1.78326	1.75911	1.73554	1.71252	1.69005	1.62571
3	2.77509	2.72325	2.67301	2.62432	2.57710	2.53130	2.48685	2.44371	2.40183	2.28323
4	3.62990	3.54595	3.46511	3.38721	3.31213	3.23972	3.16986	3.10245	3.03735	2.85498
5	4.45182	4.32948	4.21236	4.10020	3.99271	3.88965	3.79079	3.69590	3.60478	3.35216
6	5.24214	5.07569	4.91732	4.76654	4.62288	4.48592	4.35526	4.23054	4.11141	3.78448
7	6.00205	5.78637	5.58238	5.38929	5.20637	5.03295	4.86842	4.71220	4.56376	4.16042
8	6.73274	6.46321	6.20979	5.97130	5.74664	5.53482	5.33493	5.14612	4.96764	4.48732
9	7.43533	7.10782	6.80169	6.51523	6.24689	5.99525	5.75902	5.53705	5.32825	4.77158
10	8.11090	7.72173	7.36009	7.02358	6.71008	6.41766	6.14457	5.88923	5.65022	5.01877
11	8.76048	8.30641	7.88687	7.49867	7.13896	6.80519	6.49506	6.20652	5.93770	5.23371
12	9.38507	8.86325	8.38384	7.94269	7.53608	7.16073	6.81369	6.49236	6.19437	5.42062
13	9.98565	9.39357	8.85268	8.35765	7.90378	7.48690	7.10336	6.74987	6.42355	5.58315
14	10.56312	9.89864	9.29498	8.74547	8.24424	7.78615	7.36669	6.98187	6.62817	5.72448
15	11.11839	10.37966	9.71225	9.10791	8.55948	8.06069	7.60608	7.19087	6.81086	5.84737
16	11.65230	10.83777	10.10590	9.44665	8.85137	8.31256	7.82371	7.37916	6.97399	5.95424
17	12.16567	11.27407	10.47726	9.76322	9.12164	8.54363	8.02155	7.54879	7.11963	6.04716
18	12.65930	11.68959	10.82760	10.05909	9.37189	8.75563	8.20141	7.70162	7.24967	6.12797
19	13.13394	12.08532	11.15812	10.33560	9.60360	8.95012	8.36492	7.83929	7.36578	6.19823
20	13.59033	12.46221	11.46992	10.59401	9.81815	9.12855	8.51356	7.96333	7.46944	6.25933

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